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ABSTRACT

A substrate processing apparatus includes a reaction chamber for simultaneously processing a plurality of process substrates, a boat for loading the process substrates into the reaction chamber, and a stocker for storing a multiple number of dummy substrates, at least a portion of the dummy substrates being loaded into the reaction chamber together with the process substrates through the use of the boat. A substrate cleaning process is carried out by loading dummy substrates to be cleaned into the reaction chamber through the use of the boat and introducing a cleaning gas into the reaction chamber.